

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 (currently amended). A method of retrieving data from a disk, comprising:

determining [the] a first network transfer rate of a network connection between a first client and a server and determining a second network transfer rate between a second client and a server wherein the first and second network transfer rates are different;

responsive to [a data request] data requests received by the server from the [client] first and second clients via [a] corresponding network [connection] connections, retrieving a first portion of the requested data from the disk;

initiating transmission of the first portion of data to the [client] first and second clients via the network;

calculating the time required to transmit the first portion of data to the [client] first and second clients based upon the first and second network transfer [rate] rates, respectively; and

retrieving a subsequent portion of the requested data from disk and transmitting the subsequent portion to the first and second clients based, at least in part, on whether the calculated time for each client is expired wherein the subsequent portion is transmitted to the first and second clients at different times.

2 (currently amended). The method of claim 1, wherein determining the network transfer [rate] rates comprises determining the network transfer rate of a TCP connection between the respective client and the server.

3 (original). The method of claim 1, wherein retrieving a first portion of the requested data comprises retrieving data from a first block of the disk.

4 (original). The method of claim 1, wherein determining when to retrieve a subsequent portion of the requested data from disk includes delaying retrieval of the subsequent portion until the calculated time is expired to minimize the server system memory required to complete the file request.

5 (original). The method of claim 1, wherein determining when to retrieve the subsequent portion of the requested data includes determining when to retrieve the subsequent portion based

at least in part on the distance between the current head position and the disk location of the subsequent portion of data.

6 (original). The method of claim 1, wherein determining when to retrieve a subsequent portion of the requested data from disk includes monitoring the position of the disk head while the first portion of data is being transmitted to the client.

a' 7 (original). The method of claim 6, further comprising determining the disk location of the subsequent portion of data associated with the first request and determining the disk location of a portion of data associated with a second file request.

8 (original). The method of claim 7, further comprising retrieving the portion of data associated with the second file request if the data is closer to the current head position than the data associated with the subsequent portion of the first file request.

9 (original). The method of claim 8, further comprising retrieving the subsequent portion of data associated with the first file request after the calculated time expires.

10 (currently amended). A computer program product comprising a computer readable medium containing computer executable instructions for retrieving data from disk comprising:

computer code means for determining [the] a first network transfer rate of a network connection between a first client and a server and determining a second network transfer rate between a second client and a server wherein the first and second network transfer rates are different;

computer code means for retrieving a first portion of the requested data from the disk responsive to [a data request] data requests received by the server from the [client] first and second clients via [a] corresponding network [connection] connections;

computer code means for initiating transmission of the first portion of data to the [client] first and second clients via the network;

computer code means for calculating the time required to transmit the first portion of data to the [client] first and second clients based upon the first and second network transfer [rate] rates, respectively; and

computer code means for retrieving a subsequent portion of the requested data from disk and transmitting the subsequent portion to the first and second clients based, at least in part, on whether the calculated time for each client is expired wherein the subsequent portion is transmitted to the first and second clients at different times.

11 (currently amended). The computer program product of claim 10, wherein the code means for determining the network transfer [rate] rates comprises code means for determining the network transfer rate of a TCP connection between the respective client and the server.

12 (original). The computer program product of claim 10, wherein the code means for retrieving a first portion of the requested data comprises code means for retrieving data from a first block of the disk.

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13 (original). The computer program product of claim 10, wherein the code means for determining when to retrieve a subsequent portion of the requested data from disk includes code means for delaying retrieval of the subsequent portion until the calculated time is expired to minimize the server system memory required to complete the file request.

14 (original). The computer program product of claim 10, wherein the code means for determining when to retrieve the subsequent portion of the requested data includes code means for determining when to retrieve the subsequent portion based at least in part on the distance between the current head position and the disk location of the subsequent portion of data.

15 (original). The computer program product of claim 10, wherein the code means for determining when to retrieve a subsequent portion of the requested data from disk includes code means for monitoring the position of the disk head while the first portion of data is being transmitted to the client.

16 (original). The computer program product of claim 15, further comprising computer code means for determining the disk location of the subsequent portion of data associated with the first request and computer code means for determining the disk location of a portion of data associated with a second file request.

17 (original). The computer program product of claim 16, further comprising computer code means for retrieving the portion of data associated with the second file request if the data is closer to the current head position than the data associated with the subsequent portion of the first file request.

18 (currently amended). A data processing system, comprising:

at least one disk;

a server connected to a network and having access to the disk, wherein the server is further connected to a client via a TCP connection;

wherein the system includes:

computer code means for determining the network transfer rate of a network connection between a client and a server;

computer code means for retrieving a first portion of the requested data from the disk responsive to a data request received by the server from the client via a network connection;

computer code means for initiating transmission of the first portion of data to the client via the network;

a computer code means for calculating the time required to transmit the first portion of data to the client based upon the network transfer rate; [and]

computer code means for determining when to retrieve a subsequent portion of the requested data from disk based, at least in part, on whether the calculated time is expired including code means for monitoring the position of the disk head while the first portion of data is being transmitted to the client;

computer code means for determining the disk location of the subsequent portion of data associated with the first request and computer code means for determining the disk location of a portion of data associated with a second file request; and

computer code means for retrieving the portion of data associated with the second file request if the data is closer to the current head position than the data associated with the subsequent portion of the first file request.

19 (original). The system of claim 18, wherein the code means for retrieving a first portion of the requested data comprises code means for retrieving data from a first block of the disk.

20 (original). The system of claim 18, wherein the code means for determining when to retrieve a subsequent portion of the requested data from disk includes code means for delaying retrieval of the subsequent portion until the calculated time is expired to minimize the server system memory required to complete the file request.

21 (original). The system of claim 18, wherein the code means for determining when to retrieve the subsequent portion of the requested data includes code means for determining when to retrieve the subsequent portion based at least in part on the distance between the current head position and the disk location of the subsequent portion of data.

22 (canceled).

23 (canceled).

24 (canceled).
